Portsmith daptaPort Bluetooth to Ethernet Adapter

USER GUIDE

Model: PSA5BT1E

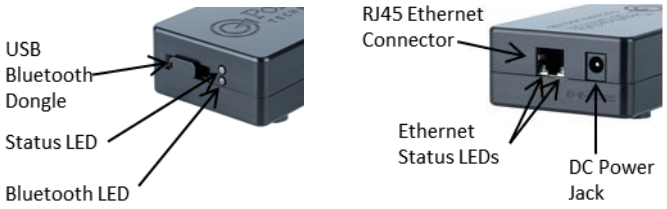
INTRODUCTION

The Portsmith daptaPort Bluetooth to Ethernet Adapter (PSA5BT1E) is a sophisticated embedded system specifically designed as a Bluetooth to Ethernet network access point. The typical use case is an Android hand-held terminal, hand-held or tablet requiring network access other than via its built in WIFI function, or where wired Ethernet is not possible but required.

PSA5BT1E Factory setting is INSECURE mode: - USE CAUTION WHEN INSTALLING because any compatible Bluetooth PAN device will have the ability to pair and connect to the PSA5BT1E.

The PSA5BT1E is shipped in INSECURE mode, i.e. without a PIN programmed at the factory. The end user installing may deploy the PSA5BT1E in INSECURE or SECURE mode depending on requirements. The procedure for programming the PIN code to SECURE the device is outlined in the manual.

CONNECTION AND LED DISPLAY LAYOUT



The PSA5BT1E has two user viewable LED's for indicating conditions and status for the adapter. Do not confuse these with the amber and green Ethernet activity LEDs below the Ethernet port. Further details are described in the manual.

TOP LED (PSA5BT1E status)

Red - blinking	PSA5BT1E is booting / starting
Red - solid	PSA5BT1E has detected an error and the systems is not running
Amber – solid	PSA5BT1E is running INSECURE - no PIN programmed
Green – solid	PSA5BT1E is running SECURE – PIN programmed

BOTTOM LED (Bluetooth status)

OFF	Bluetooth not ready
Blue - solid	Bluetooth ready, no connections
Blue - blinking	Bluetooth connected – blinking per connection. (1,2,3,4,5)

If the BOTTOM LED remains off for more than 1 minute, ensure the bluetooth USB dongle is fully in place.

Ethernet Activity LEDs (located below Ethernet port)

LEFT - Link LED	Green - Blinks to show Ethernet activity
	OFF no Ethernet link
RIGHT - Speed LED	YELLOW indicates 100Mbps transfer rate,
	OFF indicates 10Mbps

NOT CONNECTED **CONNECTED INSECURE** **CONNECTED SECURE**

NEW INSTALLATION / STARTUP

From the factory the PSA5BT1E will start up (boot) and will be in INSECURE mode: any compatible Bluetooth device will have the ability to pair and connect to the device without the need for entering a PIN.

Bluetooth to Ethernet function with be operational and will accept a pairing request and subsequent connection attempt. Since devices do not require a PIN in this mode, it is referred to as INSECURE as any device could request to pair and connect, gaining access to the network .

Note: If the PSA5BT1E has been previously set up with PIN and is rebooted or restarted it will retain its programmed PIN.

Requirements:

- PSA5BT1E kit
    - PSA5BT1E Adapter. *(The installed BT adapter is hard coded to the adapter and removing or replacing will render the PSA5BT1E inoperable.)*
    - 5V DC power supply. *(Use only this provided 5VDC power supply.)*
    - Ethernet cable
- Network / local area network with DHCP router *
- Standard 10/100 Ethernet connection
- AC power source

*It is possible to use a fixed or static IP address. See the User manual.

Procedure:

1. Ensure the PSA5BT1E is cabled to the local area network
    a. Plug Ethernet cable into PSA5BT1E
    b. Plug Ethernet cable from the PSA5BT1E into the available standard 10/100 Ethernet connection
2. Connect the DC power supply to the AC power source and the PSA5BT1E
3. The PSA5BT1E will startup
4. During the boot sequence the top LED PSA5BT1E will blink red indicating the adapter is starting up.

Successful startup / LED conditions:

- Top LED will glow amber solid indicating the system is INSECURE and no PIN is assigned
- Bottom LED will glow blue indicating Bluetooth is ready to connect

Unsuccessful startup - error state / LED conditions:

- RJ45 Ethernet connector LED's will not glow indicating PSA5BT1E was not assigned an IP address from the local network router.
- Top LED will glow red indicating an error in the system.
- Bottom LED will be off

If the TOP LED shows solid red, check the Ethernet cable is securely connected., this will If that is still not successful, power down the PSA5BT1E and try connecting to a different Ethernet network port.

SET PIN

After successfully programing the PSA5BT1E with a PIN the device with be in SECURE mode. Device will operate without a PIN, but the use of a PIN is strongly advised.

It is possible to reset the PSA5BT1E PIN code subsequently using the Portsmith PortDox Device Manager utility (see below). Depending on your security requirements you may want to secure the PC used to program the PIN code or restrict access to it so that the PSA5BT1E PIN cannot be altered.

Requirements:

- A PSA5BT1E successfully running on a local network
- A Windows PC running on the same network as the PSA5BT1E
- Portsmith PortDox Device Manager utility installed and running on the Windows PC
    - Download at www.portsmith.com/portdox

Procedure:

1. Open PortDox Device Manager on the Windows PC
2. Click "List" - PortDox Device Manager will search and list PSA5BT1E's running on the network
3. A PSA5BT1E will identify itself as "dptaPtBt_XXXXX"
4. Highlight the PSA5BT1E.
5. Right click or select "Device / Configure"
6. Enter a PIN code between 4 to 16 numerals in the "Bluetooth Passkey" dialog box and click "Save"
7. Write down or remember the PIN code
8. You may reprogram the PIN by repeating this procedure.

Successful PIN programming - LED conditions will indicate:

- PSA5BT1E was programmed with a PIN
- The adapter is ready to PAIR or connect
    - Top LED will glow green indicating the PSA5BT1E is programmed with a PIN and is SECURE
    - Bottom LED will glow blue indicating the PSA5BT1E is ready for a connection

PAIRING DEVICES TO PSA5BT1E

The PSA5BT1E will allow as many pairings as you require. Depending on your device you may pair it to multiple PSA5BT1Es

Pairing does not mean that the devices are connected. These are two different operations.
Pairing means the handheld device is ALLOWED to communicate with a PSA5BT1E and the PSA5BT1E will accept a request to connect from the handheld.
Connected means the device is connected and able to communicate via a PSA5BT1E.

This is a general guideline depending on your hand-held or tablet. The use case for pairing is prescribed by your operating system. The PSA5BT1E is compatible with most Android 4+ and Windows 8.1 devices.

The device being paired must be in proximity of the adapter. Ensure that you are within at least 10 feet of proximity to the adapter.

Requirements:

- A PSA5BT1E successfully running on a local network running INSECURE or SECURE
- Device to pair - Android or Window 8.1

Procedure for Android

1. Click settings
2. Ensure that Bluetooth is enabled
3. Scan for available devices
4. A PSA5BT1E will identify itself as “dptaPtBt_xxxxxx” (xxxxx is an alphanumeric sequence signifying the serial number of the adapter)
5. Select the PSA5BT1E you wish to pair to
6. If the PSA5BT1E is INSECURE no PIN will be asked for
7. If the PSA5BT1E is secure Android will ask for the PIN assigned to the adapter in the set PIN section.
8. If successful Android will show that the PSA5BT1E and hand-held are paired
9. Ensure the “Internet access” box is selected

For Windows 8.1

1. Click PC settings, PC and devices, Bluetooth
2. Turn Bluetooth on if it is not already running
3. Windows will search for devices
4. Click the ‘dptaPtBt_XXXXXX’ you wish to pair to
5. Depending on the PIN security state of your PSA5BT1E you may leave the PIN box blank if INSECURE or enter the PIN if SECURE

CONNECTION PROCESS

The PSA5BT1E is designed to be a Bluetooth to Ethernet network adapter so therefore all other sources of network access must be disabled. Turn off WIFI or cellular data sources to ensure the Bluetooth will be the path for network access.

Requirements:

- A PSA5BT1E successfully running on a local network running INSECURE or SECURE mode
- Device successfully paired to PSA5BT1E

Procedure:

1. Ensure that the devices to connect are within 10 feet /(3M) line of sight to the PSA5BT1E
2. Click settings, Bluetooth
3. Locate the paired PSA5BT1E and click the icon.
4. The devices should connect.

Successful connection - LED conditions will indicate:

- The top LED will glow depending on the security condition of the PSA5BT1E
- The bottom LED will blink Blue for each connection. i.e. 1, 2, 3, 4, or 5 times depending on the number of devices connected.
- The PSA5BT1E has the ability to have 5 concurrent connections.
- The PSA5BT1E will reject any connection request if it has 5 connections active.
- As long as the connected device remains in proximity of the PSA5BT1E the connection may remain static until it is severed by the end user either by repeating the process above or by the device connected leaving the range of Bluetooth radio on the PSA5BT1E.

LOCATING A PSA5BT1E WITH SIGNAL ME

Several devices may be installed in proximity of one other and my not be labelled or otherwise noted. The PortDox Device Manager can assist you in locating a PSA5BT1E by forcing the device to blink its LED's so that it may be easier for you to locate it.

Requirements:

- A PSA5BT1E successfully running on a local network
- A Windows PC running on the same network as the PSA5BT1E
- Portsmith PortDox Device Manager utility installed and running on the Windows PC

Procedure

1. Open PortDox Device Manager on the Windows PC
2. Click "List" - PortDox Device Manager will search and list PSA5BT1E's running on the network
3. A PSA5BT1E will identify itself as "dptaPtBt_XXXXX"
4. Highlight the PSA5BT1E.
5. Right click or select "Device / Signal Me"
6. Click the check box next to "Signal Me with LEDs"
7. The PSA5BT1E top LED will cycle through red, amber and green.
8. To cancel Signal Me repeat the procedure and unselect the "Signal Me with LEDs" check box

SETUP PSA5BT1E WITH A STATIC IP ADDRESS

It is possible to set the PSA5BT1E with a static IP address.

Requirements:

- A PSA5BT1E successfully running on a local network using DHCP
- A Windows PC running on the same network as the PSA5BT1E
- Portsmith PortDox Device Manager utility installed and running on the Windows PC

Procedure

1. Open PortDox Device Manager on the Windows PC
2. Click "List" - PortDox Device Manager will search and list PSA5BT1E's running on the network
3. A PSA5BT1E will identify itself as "dptaPtBt_XXXXX"
4. Highlight the PSA5BT1E.
5. Right click or select "Device / Configure"
6. Click the check box next to "Use DHCP"
7. Enter the IP Address, Subnet Mask and Gateway for the required static IP configuration.
8. Click "Save"
9. Disconnect power to the adapter
10. Reconnect power to the adapter and allow it to reboot.